



Artificial Software Diversification for WebAssembly

sub-title

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Abstract

[1]

Keywords: Lorem, Ipsum, Dolor, Sit, Amet

Sammanfattning

[1]

LIST OF PAPERS

1. ***Superoptimization of WebAssembly Bytecode***
Javier Cabrera-Arteaga, Shrinish Donde, Jian Gu, Orestis Floros, Lucas Satabin, Benoit Baudry, Martin Monperrus
Conference Companion of the 4th International Conference on Art, Science, and Engineering of Programming (Programming 2021), MoreVMs
<https://doi.org/10.1145/3397537.3397567>
2. ***CROW: Code Diversification for WebAssembly***
Javier Cabrera-Arteaga, Orestis Floros, Oscar Vera-Pérez, Benoit Baudry, Martin Monperrus
Network and Distributed System Security Symposium (NDSS 2021), MADWeb
<https://doi.org/10.14722/madweb.2021.23004>
3. ***Multi-Variant Execution at the Edge***
Javier Cabrera-Arteaga, Pierre Laperdrix, Martin Monperrus, Benoit Baudry
Conference on Computer and Communications Security (CCS 2022), Moving Target Defense (MTD)
<https://dl.acm.org/doi/abs/10.1145/3560828.3564007>
4. ***WebAssembly Diversification for Malware Evasion***
Javier Cabrera-Arteaga, Tim Toady, Martin Monperrus, Benoit Baudry
Computers & Security, Volume 131, 2023
<https://www.sciencedirect.com/science/article/pii/S0167404823002067>
5. ***Wasm-mutate: Fast and Effective Binary Diversification for WebAssembly***
Javier Cabrera-Arteaga, Nick Fitzgerald, Martin Monperrus, Benoit Baudry
6. ***Scalable Comparison of JavaScript V8 Bytecode Traces***
Javier Cabrera-Arteaga, Martin Monperrus, Benoit Baudry
11th ACM SIGPLAN International Workshop on Virtual Machines and Intermediate Languages (SPLASH 2019)
<https://doi.org/10.1145/3358504.3361228>

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ACRONYMS

List of commonly used acronyms:

AE Acronym examples

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INTRODUCTION

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BACKGROUND AND STATE OF THE ART

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TECHNICAL CONTRIBUTIONS

REFERENCES

Part I

Included papers

SUPEROPTIMIZATION OF WEBASSEMBLY BYTECODE

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Javier Cabrera-Arteaga, Orestis Floros, Oscar Vera-Pérez, Benoit Baudry,
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MULTI-VARIANT EXECUTION AT THE EDGE

Javier Cabrera-Arteaga, Pierre Laperdrix, Martin Monperrus, Benoit Baudry
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Target Defense (MTD)*

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WEBASSEMBLY DIVERSIFICATION FOR MALWARE EVASION

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Computers & Security, Volume 131, 2023

<https://www.sciencedirect.com/science/article/pii/S0167404823002067>

WASM-MUTATE: FAST AND EFFECTIVE BINARY DIVERSIFICATION FOR WEBASSEMBLY

Javier Cabrera-Arteaga, Nick Fitzgerald, Martin Monperrus, Benoit Baudry
Under revision

SCALABLE COMPARISON OF JAVASCRIPT V8 BYTECODE TRACES

Javier Cabrera-Arteaga, Martin Monperrus, Benoit Baudry

*11th ACM SIGPLAN International Workshop on Virtual Machines and
Intermediate Languages (SPLASH 2019)*

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